Solutions Seminar Meeting Summary

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Meeting Overview

Meeting Details

Meeting Date: Wednesday, April 17th, 3 - 5:15 PM
Meeting Location: Conference Room, International Agriculture Center, 4500 S Laspina St, Tulare, CA
Public Participants: 29
MLRP Partners: 18
Total Participant Count: 47 Attendees

Meeting Purpose

The purpose of this seminar is to provide growers, land owners, and community members with:

- Practical information on land use options,
- Where and how options can be best implemented,
- Current funding sources, tools, and technical assistance,
- and other considerations for converting ag land to uses such as Solar, Temporary Fallowing, Recharge, No-/Low-Irrigated Crops, Wildlife Grazing, and Habitat.

Meeting Agenda

3:00 - 3:25 PM	Welcome, Opening Comments, & MLRP Overview	
	Track 1	**Track 2**
3:30 - 4:00 PM	Temp Land Fallowing & Low/No Water Crops	Habitat & Open Space
4:00 - 4:30 PM	Solar Farms *(Utility & Commercial Scale)*	Permanent Conservation
4:30 - 5:00 PM	Recharge	Livestock Grazing
5:00 - 5:15 PM	Next Steps and Closing Comments	

Meeting Materials

View the Solutions Seminar Participant Agenda Here

View the Speaker Presentations throughout this summary

To learn more about the Tule Subbasin MLRP (“multi-benefit land repurposing program”) visit

https://tule-mlrp.org/

Submit your MLRP pre-application: https://tule-mlrp.org/wp-content/uploads/2024/04/Pre-Application.pdf

Welcome & Opening Comments

Session Material

- Meeting Presentation Slideshow

Speakers

- **Allison Tristao,** Resources Coordinator, Lower Tule River and Pixley Irrigation Districts, atristao@ltrid.org, Tel #: (559) 467-9964
- **Kathy Wood McLaughlin,** Principal, TKM Consulting, Inc, Board of Directors Member, Tule Basin Land & Water Conservation Trust, kathy@tkm-consulting.com
- **Robert Gould,** Managing Facilitator, Ag Innovations, robert@aginnovations.org

Presentation Notes

Over the next two decades, major agricultural regions in California will transition to sustainable groundwater use by 2040 or 2042 as mandated by the Sustainable Groundwater Management Act (SGMA). Sustainable management will help avoid land subsidence, lowering groundwater levels, dust bowls, and other undesirable results. The Tule Subbasin Multi-Benefit Land Repurposing Program (MLRP) is a local collaborative effort that aims to support landowners, farmers, and communities in achieving groundwater sustainability by transitioning irrigated agriculture to alternative land uses, known as land repurposing, that provides multiple benefits such as community, economic, and environmental wellbeing.

The MLRP supports landowners, growers, and community members by providing funding & support for growers and landowners who voluntarily transition irrigated crops to alternative land uses. The program has approximately $4 Million available for small scale or pilot projects. The program also develops mapping and decision-support materials to help GSA's, growers, and landowners make better informed land use and investment decisions. Lastly, the program is developing plans that will help local Groundwater Sustainability Agencies with prioritizing solutions and unlocking funding. Tule Subbasin Groundwater Sustainability Agencies are prioritizing the following efforts in regard to MLRP:

- Connect MLRP with Groundwater Sustainability Plans
- Achieve groundwater sustainability with projects and actions that:
    - Reduce demand for groundwater.
    - Increase groundwater storage.
    - Manage land subsidence.
    - Improve and protect water quality.
- Aligning projects with the individual GSAs
- Work with your local GSA
- Participate in the development of the local MLRP plans.

Questions & Answers

- Q: How much money is available for projects?
    - A: $4-5 million overall but that amount is based on a 3-week review period and project scores and if a project is chosen then must go through another scoring process to determine how much money is allotted towards that project.
- Q: How long has the project application been open?
    - The application is opening up on Monday, April 22nd.
- Q: How successful is the program with funding projects in other countries?
    - A: Other projects in counties cannot be compared as they already have projects in mind with specific parameters they are focusing on where the funding for Tule Subbasin funding is starting with an RFP and has more flexibility.

Land Repurposing Sessions

Temporary Fallowing & Dryland and Low Water Crops

Session Material

- Temporary Fallowing Slideshow
- Dryland and Low Water Farming Slideshow
- Temporary Fallowing Summary
- Dryland and Low Water Farming Summary

Speakers

- **Frank Fernandes**, Board President, Tule Basin Land and Water Conservation Trust. Frank is a 3rd generation farmer in Tule Subbasin where he farms 1,500 acres near Pixley and grows and harvests his own crops for his cows. He manages a young pistachio orchard. Frank's is passionate about sustainable farming practices such as regenerative farming and improving soil health. He has implemented Land Repurposing Solutions on his own farm and in his outreach to farmers in the Tule Subbasin. Frank's has supported the Capinero Creek conservation project, north of the Pixley National Wildlife Preserve, which is one example of an MLRP solution that brings hope to farming and SGMA rules.

- **Armando Leal,** Land Fallowing Program Farmer. Armando Leal was born and raised on a dairy farm in Tipton, CA. He has been a crop advisor for over 40 years. His family has almonds, open ground, and farms a small acreage of walnuts. He participates in both Land Trust and Land Flex programs. aleal57@yahoo.com

- **Andrew Glazier,** Dryland and Low Water Farming Nurseryman. Graduated with a degree in communication design. A lifelong gardener he turned his attention to California natives in 1980 while working in retail nurseries. Since then, he has grown natives and been involved in restoration grow outs, drought tolerant plants, and what he calls "Residential restoration" or educating homeowners on the benefits of planting native plants to attract beneficial pollinators. He also has worked with Pistachio farmers to create pollinator hedgerows. Tel #: (559)203-8590

- **Susan Long,** Executive Director, Tule Basin Land and Water Conservation Trust, susanlong@tuletrust.org, Tel #: (559)362-0597 (not in attendance, but is point contact for the Land Fallowing Program and grower outreach)

Presentation Notes

Temporary Land Fallowing

- Fallow ground or fallow soil refers to land that has been left unplanted as a method of sustainable land management. Fields taken out of crop rotation remain fallow for one to five years and provide a number of benefits to the land owner and surrounding community.
- Temporary Fallowing benefits include:
    - Helps balance insects and mitigation which helps with the cost of pesticide cost for crops
    - Shelters the ground with biodiversity which helps the numbers go down and increases soil temperatures
    - Cover crop also increases percolation with recharge basins
    - Decreases the need for passes which decreases the need for fuel and labor (planting, tillage, planting tillage, strip)
    - Assists in water quality when you let cover crop grow high as it decreases the nitrogen
- Amando Leal, a land fallowing program participant shares his thoughts on land fallowing:
    - A lot of misconceptions about the programs available to assist growers and landowners
    - The land fallowing program is a true cover crop/land fallowing program for the growers/land owners

with the option of multiple year enrollment upon eligibility
    - The program is a good fit towards SGMA implementation
    - Depending on rainfall, the crops are robust. They can be a challenge once in the program, best to know what is required for the upkeep.

Dryland and Low Water Farming

- Dryland farming relies solely on natural rainfall and is typically practiced during the dry season or the whole year in arid climates. Dryland plus farming includes limited irrigation during the dry season. Rainfed farming exclusively depends on rainfall during the rainy season. Regardless of the method chosen, farmers can operate under SGMA with the opportunity to produce enough revenue to cover land cost and make a profit, while generating as much or more in net returns per acre-foot of water.
- Types of dryland and low water crops include: Winter Wheat, Barley, Corn, Sorghum, Rosemary, Sage, Native Plants & Seed, Sweet Potatoes/Potatoes, Okra, Artichokes, or Beans.
- Benefits of dryland and low water farming includes helping retain subsoil moisture, reducing the need for herbicides use, acting as soil stabilizers, many crops are in high or increasing demand, and they can provide profitability and environmental stewardship.
- Andrew Glazier is a dryland and low water farming nurseryman who explained how cover crops along water channels and along the banks can protect the soil and provide habitat for beneficial insects, as well as keep the cover crops shaded underneath tree canopies, all helps reduce diesel, water use, and labor costs.

Questions & Answers

Temporary Land Fallowing - Frank Fernandes: President of Tule Basin Land and Water Conservation Trust

- Where did the funding come from and is it available to every GSA?
    - This funding was a grant through the GSA and the trust so it depends on whether the GSA and the grantee are working together to execute the project.

Andrew Glazier - Nurseyman

- Can you provide numbers for acreage that benefited from the Dryland farming and cover crop being grown along the water channels?
    - Numbers are not available due to legal agreements with the farmers/owners but the results are real and can be beneficial.

Solar Farms

Session Material

- Solar Slide Show
- Solar Farms Summary

Speakers

- **Frank Leyendekker,** Coldwell Solar. He serves as the Finance Manager at Coldwell Solar, located in Tulare, CA. Frank has 6 years of experience in solar development, particularly within the agriculture and manufacturing sectors, helping develop over 100 MW of solar capacity. fleyendekker@coldwellsolar.com, Tel# (559) 687-1990

Presentation Notes

Frank Leyendekker - Coldwell Solar

- Solar farms can be used to reduce energy costs for agricultural operations (commercial scale) or they can sell clean energy to the grid (utility scale).
- Commercial-scale Solar is individually owned solar for the purpose of offsetting and lowering business cost of energy.
- The ideal energy profile is someone who consumes consistent energy over the year. Less ideal is someone who has a high energy use, but only seasonally, as with groundwater pumping only in the dry months.

- Community-scale Solar is a solar project where multiple subscribers buy clean and affordable power from solar farms dedicated to that purpose. Typically, generation costs are lower than traditionally-sourced power from the utility. The benefit to the landowner is that their land is leased to a 3rd party - over 25 - 30 years - who owns and installs the solar array and works with the utility to get the subscribers.
- Utility-scale Solar farms, deliver power to the Utility in specific locations close to utility substations or power lines. The benefit to the landowner is that the land is leased to a 3rd party - again, over a 25-30 year period - who owns and installs the solar array and manages all the details. These systems are typically much larger, involving 100's if not 1000's of acres of land
    - Best parameters for Utility Solar implementation:
        - Land is owned
        - Not in a flood zone
        - Typical soils (not rocky)
        - Near substation (100+ acres)
        - Comfortable with 3+ development time
- Helpful things to note:
    - Public utilities are constantly changing the rules that impact the economics and viability of solar. For example, community-scale solar does not currently have funding.
    - New commercial-scale solar projects will expect ROI on their solar in 3-6 years, assuming the right energy-use profile, with 2.5-5 acres of land required.
    - Utility-scale solar funding is available as the state is still committed to large renewable energy goals and the SJ Valley is seen as a primary location for these very large systems.
    - Solar could be a viable option on multiple fronts, especially when coupled with water reducing activities. Reach out to a solar expert to determine the viability of your land.
        - Coldwell Solar: fleyendekker@coldwellsolar.com
        - Avantus. https://avantus.com, (323) 525-0900

Questions & Answers

- Q: Do they return the land where the solar was back to its original habitat when the term is done?
    - A: They say they do but typically they extend the term to keep the solar or find other options to do something else with the land.
- Q: Are there lease payments while they are developing solar?
    - A: Yes, there are lease payments.
- Q: Can you have crops or animals around the solar?
    - A: You can have animals, but it's best to not have larger or climbing animals, like cows or goats, as they can damage the solar panels. You can have crops in the surrounding areas but not right up against the panels.

Groundwater Recharge

Session Material

- Groundwater Recharge Slideshow
- Groundwater Recharge Summary

Speakers

- **Taylor Broadhead,** Senior Manager of Water Policy, Audubon California, taylor.broadhead@audubon.org, Tel #: (785) 231-9389

- **Allison Tristao,** Resources Coordinator, Lower Tule River and Pixley Irrigation Districts, atristao@ltrid.org, Tel #: (559) 467-9964

- **John Michael Domondon,** District Engineer, Pioneer Water Company, Tea Pot Dome Water District, Vandalia Water District, and Campbell Moreland Water Company, jdomondon@ltrid.org, Tel #: (559) 686-4716 ext 215

Presentation Notes

- Groundwater recharge is a practice that involves applying excess surface water flows across the landscape to replenish the underground aquifers faster than it would occur naturally. Converting active farmland to recharge opportunities could help meet the objectives of SGMA by enhancing recharge and by reducing groundwater demand, land subsidence, and risk from uncontrolled flooding.
- How is groundwater recharged?
    - Either through Natural or Managed Aquifer Recharge (MAR). Types of MAR include dedicated basins, wetlands, injection wells or subsurface, streams and canal seepage, on farm-recharge, and fallowed land
- If you are using drip irrigation, a lot of sediment can build up and could be clogging irrigation
- Benefits to Stakeholders:
    - Wildlife- 90-95% of wetland life is gone, and only 5-10% of the land is supporting America's Waterfowl which would help grow wildlife.
    - Slowing or halting subsidence and decreasing the cost of pumping
    - Recharge projects can increase communities suffering from depleted water supply but could push chemical levels into higher unsafe levels.
- Grower incentives from Lower Tule/ Pixley Irrigation Districts (ID)
    - The Irrigation District has a Policy 3: Water Account and Water Transfers. Through this policy, there are "Landowner Developed Credits." This policy says when surface water is diverted by landowners into a recharge basis the landowner can be credited for that water using the criteria set out in Policy 2 "Banking at Landowner Level"
- Learn more about the ID's groundwater policy here. (http://www.ltrid.org/wp-content/uploads/_pdf/sgma/LTRID_GSA_policies_final.pdf)
    - Requirements for applying for Policy:
        - Notify the irrigation district
        - Complete application
        - Install Meter
        - Water cannot be diverted, must be sunk
        - Determine how many water credits you are going to need in order to make your recharge basin functional
        - Talk to your neighbors before taking any step
        - Examples of Recharge Basins: Lower Deer Creek, DCTRA Recharge Basin
        - You can get help from the district and they can help you fill out the application

Questions & Answers

- Q: How are we able to use all these options that have been presented?
    - A: Problem solving, reaching out to the district and asking questions about what possibilities are available, discussing with family, reaching out to the banks, banks like water credits.

Habitat & Open Space

Session Material

- Habitat and Open Space Slideshow
- Habitat & Open Space Summary

Speakers

- **Abigail Hart,** Agriculture Project Director, Water Program, The Nature Conservancy, abigail.hart@tnc.org, Tel #: (330) 763-4029

- **Leticia Classen-Rodriguez,** Science Program Director & Environmental Science Lead, SEEN, lclassenrodriguez@seen.team

Presentation Notes

- Natural areas and open spaces provide habitat for wildlife as well as a range of benefits for humans. These areas encompass everything from permanent habitat in preserves to temporary habitat found in and around farm fields. Habitat and open space can also range in size from thousands of acres to small strips and hedgerows. Open spaces can also function as buffers between agriculture and rural communities that reduce human health risks and create socioeconomic benefits for growers and communities.
- Habitat example:
    - Capinero Creek is a habitat restoration project. The land was sold from a JG Bowswell family to an investor. The investor had plans to repurpose land into different uses. They also decided they wanted to divest portions of the property that was marginal. The land was repurposed into a recharge basin and the investors also sold some land to the Irrigation District (ID). The ID's interest in the property was to cease pumping on the land immediately. They had relationships with environmental NGOs to support habitat restoration. The original property owner was able to easily sell land to investors. The investor has an interest to make profit. Irrigation District was able to make a purchase quickly from the investor. They were able to compensate the trust immediately after the land pumping stopped. Investors can be easier to work with as they don't have family ties to a land. This past year we passed annual grasses on the land. This year native seeds and plants will be planted on the land. SEEN brings students to the land for education programs.
- Buffer Zone Example:
    - SEEN works with communities in the Central Valley. Around 150 communities that are disproportionately impacted by environmental conditions like air quality, pesticide exposure and leaching.
    - These environmental pollutants can be addressed by repurposing the lands in and around the communities within buffer zones. When you create a "buffer zone," you create a buffer of health around the community that improves the health of the individuals. It creates a barrier for pesticides. Ideally, these buffers decrease environmental pollutant impacts.
    - There are state and federal agencies that provide resources for implementing these practices.
- Allensworth Story:
    - Allensworth is developing relationships for land access including, land trusts and lease agreements to allow small farmers to have access to land. They are also purchasing land to create an education farm based on agroecology. Other projects they are pursuing include creating a market center, housing, summer camps, agrotourism, and childcare for farmers; they are also working on agreements with Pistachio companies near their community to change their agricultural practices to improve health issues.
- La Vina, Madera County Story:
    - The landowner agreed to retire land around the La Vina community and put in plants to provide barriers that provide a benefit to the community. It was a small piece of land, but had a big positive impact for the community. This project is approved for MLRP funding (via DOC).

Questions & Answers

- Q: When engaging with the community, is there a sense of what the communities want?
    - A: Definitely. Communities want better air quality, water quality, nature-based recreational spaces, energy (micro-grids), and socioeconomic opportunities.

Conservation Easements

Session Material

- Conservation Easements Slideshow
- Conservation Easements Summary

Speakers

- **Gregory Liebau,** Land Protection Program Manager, Sequoia Riverlands Trust, gregory@sequoiariverlands.org, Tel #: (559) 730-1136

Presentation Notes

- A conservation easement is a voluntary agreement between a landowner and a qualified entity (such as a non-profit land trust or government agency), and establishes the future uses of a property, consistent with the landowner's values.
- Conservation easements are based on the idea that when people own land, they own rights that go with the property – such as the right to graze cattle, hunt, erect a home, subdivide, or extract minerals. By voluntarily limiting some of these activities, a conservation easement allows landowners to retain private ownership while also achieving other goals, like protecting a viable ranching operation, preserving open space or conserving habitat for wildlife. Typically, a conservation easement limits subdivision and non-agricultural, commercial uses.
- Benefits to for grower, landowner, and ecosystem
    - Avoid groundwater pumping
    - Water rights → surface allocations and sustainable yield
    - Landowners have a lot of control over the negotiation of the easement
    - Easements are designed to maximize the capacity for landowners to continue to use the land
    - Every piece of land and every owner if different
- Benefits to other stakeholders
    - Kaweah Oaks Preserve example:
        - 2015 fallow, orchard, then acquired by SRT, they pumped and let it take care of itself
        - Benefits → piece of private property that the communities can use
        - Multiple benefits in one "piece" of land and it there is public access to that land

Questions & Answers

- Q: Explain in simple terms how easements bring $$ benefits.
    - A: The MLRP can offer some money for an easement. You can combine conservation easements with other options that provide financial benefits, such as a recharge basin. Other programs offer financial incentives such as the Sustainable Ag Conservation Program and NRCS conservation programs.

Livestock Grazing

Session Material

- Livestock Grazing Slideshow
- Livestock Grazing Summary

Speakers

- **Ben Munger**, Director of Mitigation and Land Management, Sequoia Riverlands Trust, ben@sequoiariverlands.org, Tel #: (559) 738-0211

Presentation Notes

- Ben has been an area manager for grazed lands for over 10 years.

- Grazing with sheep, cattle, and goats is a viable option for many landowners who are planning on retiring lands from irrigated agriculture. Grazing leases can generate $10 or more per acre of income for the landowner on an annual basis.
- Livestock grazing has an added benefit of invasive species mitigation because the livestock will graze on big weeds. North of Richgrove is a great example of grazed land that is also a great upland habitat.
    - Consider contacting Joe Paisano located in Earlimart. He specializes in livestock grazing for weed management. This land repurposing option can be paired well with conservation easements and habitat. That's because grazed lands become really good habitat for endangered species such as the kit fox and kangaroo rat.
- When applying for the MLRP Project Application, you would most likely score higher if you combine these options on your land: grazing, habitat, and conservation easements.
    - NRCS often offers loans and grants for wildlife initiatives on working lands, such as this option: https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/california/news/nrcs-california-invests-13m-in-working

Questions & Answers

- Q: Do Kangaroo rats like solar panels?
    - A: Yes, kit foxes and kangaroo rats have been allowed through the fencing and found in the solar arrays.

Next Steps: MLRP Project Application

You are invited to submit a pre-application for the Tule Subbasin Multi-Benefit Land Repurposing Program (MLRP). We are requesting proposals for land repurposing strategies as part of a grant funded by the Department of Conservation. For a project to be eligible for funding it must meet these qualifications:

- Be located in a GSA within the Tule Subbasin
- Project must be consistent with your Groundwater Sustainability Plan
- Project must provide groundwater sustainability benefits that last at least 10 years
- Project must provide at least one other community benefit (environmental, community, or economic benefit)

Learn more about land repurposing strategies here: https://tule-mlrp.org/land-repurposing-options/
Submit your pre-application: https://tule-mlrp.org/wp-content/uploads/2024/04/Pre-Application.pdf

Application Timeline
The application opened on April 22nd, 2024. Pre-Applications will be scored every 3 weeks starting on May 13th, 2024. If selected, the landowner will be called to fill out a more robust application to get details on the proposed project. Once the group of selected pre-applicants has filled out the more robust applications, project selection will occur amongst the selected applicants. This will be a recurring process until all funds have been allocated.

Please complete your pre-application and email it to atristao@ltrid.org for review, if the project meets the minimum standards for the program you will be contacted to schedule a meeting with staff to begin the full application. Assistance will be provided throughout the application process by support staff.

Support & Resources
To learn more about land repurposing strategies please visit the Tule Subbasin MLRP website (https://tule-mlrp.org). You can find the land repurposing summaries here.

If you have any questions related to the pre-application please email Allison Tristao, Resources Coordinator at the Lower Tule River and Pixley Irrigation Districts, at atristao@ltrid.org.